

DOCUMENT-IDENTIFIER: US 6309748 B1
TITLE: Ferromagnetic powder for low core loss parts

DEPR:

Moreover, in those instances where the ferromagnetic powder according to the present invention is for use in fabricating soft magnetic material, suitable ferromagnetic particles are particles of iron or iron alloys such as Fe-Si, Fe-Al, Fe-Si-Al, Fe-Ni, Fe-Co, Fe-Co-Ni, or combinations thereof.

Typically, alloys of iron have a higher permeability and lower core losses when used in a magnetic circuit when compared with pure iron. However, pure iron functions satisfactorily and provides a higher induction (high B), is softer, is easier to press to high density and is generally lower in cost. The particles may be any suitably particulate material, for example, but not limited to, powders, fibers, wires and flakes with powders being preferred.